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The Maryland Fruit Grower

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Edited by the Secretary, A. F. Vierheller, Extension Horticulturist

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THE FORTY-THIRD ANNUAL MEETING

Our Hagerstown meeting of January 8 and 9, 1941 was another of those "best meetings we have ever had", according to those present. Meeting in the newly renovated Y.M.C.A. auditorium we had clean, comfortable quarters and a good attendance. It was a pleasure to have had fruit growers from other States with us.

After an impressive invocation by the Rev. Paul B. Watlington of First Baptist Church, a greeting of welcome was extended by Mayor Richard H. Sweeney who told the growers that the orchard industry was a part of the life and living of the city and he thanked the growers for their contributions to the city's welfare.

Mr. A. F. Vierheller, College Park, Maryland, in the Secretary's report, stated that the Society had cooperated with International Apple Association and National Apple Institute, and had been very active in National Planning Committee, with J. A. Cohill as State Chairman. Apple box standards had been set up with R. S. Dillon, Jr. as State representative, meeting with other State committees. The Society had participated in expressing our desires in such matters as apple tree removal, apple advertising, location of the Eastern By-Products Laboratory, Patman Chain Store Bill, rail rates (through W. S. Campfield of the Virginia Horticultural Society), and Canadian apple imports. He reported a one-man campaign against fruit bruising, and described the fine summer meeting held in cooperation with the West Virginia Horticultural Society, thanking Messrs. E. L. Goldsborough, A. B. Eagle, Carroll R. Miller and the staff at Kearneysville, (W. Va.). Experimental Farm for their hospitality in connection with the meeting. He reported affiliation of the Society with National Apple Institute, American Pomological Society, and Maryland Farm Bureau, also outlined the 2 meetings of the Horticultural Council and one meeting of the Executive Committee at which time an appropriation of $10,000 was requested to be added to the Governor's budget as a special item to care for a fruit inspection revolving fund, University horticultural farm equipment, State spray service, a spray residue laboratory, and peach disease investigations.

President Joseph G. Harrison in his address stated that among the problems of the fruit growers were low apple prices, and that tree removal was one way to cut production of poor stuff, urging all growers to consider this measure. Also, there is a serious bottle-neck in terminal markets causing rough handling of fruit, delay in getting it into and out of storage and reducing its life and quality. There is need of better apples reaching the consumer.

Dr. A. Lee Schrader, University of Maryland, in discussing the building of orchard soils, stated that excess cultivation has burned out organic matter, especially in southern soils, and there is general lack of fertility because of lack of application of phosphorus and potash to cover crops and sods. He urged use of complete fertilizer mixtures on the cover crop and sod, using

4-12-4, or 4-16-4. Soil deficiency symptoms, except for nitrogen, are not commonly seen in our region, although potash and boron have been found deficient in some orchards. He advised use of proper fertilizer instead of waiting for the tree to show deficiency. The poor growth of cover crop due to tree shading is a problem that is being considered, and various shade-loving cover crops are being tested for adaptability. Also, there is competition between tree roots and cover crops, and the use of some mulch material is desirable whether grown in the orchard or hauled into the orchard. Ohio trials showed 15 tons of chopped fodder per acre gave best growth and fruiting in a peach orchard. Since mulch not only conserves moisture but assists in liberating materials from the soil, he advised that in new plantings or where trees were still small enough, suitable cover crops be grown that would give heavy growth to be cut and used for mulch, but being sure to keep the cover growth away from the trees to avoid competition between tree and cover crop. Manure was found to be excellent for use around young trees. Pictures were shown of summer covers of soybeans, cowpeas, Sudan grass, corn, sorghum, millet and weeds, also winter covers of rye and vetch, weeds and sweet clover, as well as sods of sweet clover, alfalfa and grass. Deep-rooted crops compete with the tree for moisture. In experiments at College Park, the incorporation of cover crops not only increased soil organic matter percentage, but also increased the depth of the organic layer which is so important in tree root growth, drought resistance and tree fruitfulness. Lime is important in relation to cover crop and sod growth and if magnesium is lacking, dolomotic limestone is preferred. Subsoiling was suggested only where there was a heavy plow-sole or where heavy orchard equipment had puddled the land causing need for aeration.

Dr. L. P. Batjer, U. S. Horticultural Station, Beltsville, Md., stated that in 1940, the subject of harvest sprays for apple drop prevention was discussed publicly for the first time in the country before the Maryland Horticultural Society by Dr. F. E. Gardner, who had discovered this spray. The original materials, naphthalene-acetic acid and naphthalene-acetamide were first found effective in .001% concentration or about ½ teaspoonful per 100 gallons of water. The best time to apply the material was found to be just before drop began and the effective period of the material was about 2 to 3 weeks, varying with variety. In 1940 some new materials were tried, also varying amounts of present materials to find any differences, also to observe color effects. The original materials seemed best. He reported one experiment in the Eastern Shore of Maryland on Williams Red where trees sprayed with harvest spray had held their crop with 55% color at picking, while unsprayed trees had dropped half their crop and showed only 30% color. On Williams, one-half strength seems as good as full strength spray and possibly one-quarter strength may be just as good. McIntosh is a difficult apple to keep from dropping. In a New York orchard he used full-strength spray on McIntosh on August 23, and also used half-strength spray on some other McIntosh trees, repeating the half-strength spray again in two hours, 3 days, and 7 days. All sprays and methods seemed equally good for about 11 days. On the 13th day heavy drop began. The sprays were repeated, but 4 days later, the drop in all treatments was about as bad as on trees not sprayed. The reason seemed to be that the abcission layer (that layer of cells that holds the apple stem to the fruit spur) evidently begins to soften from the inside in case of the McIntosh, so the spray does not take effect. He suggested that McIntosh be sprayed just ahead of the drop, and the spray repeated again after about 8 to 10

days, if first spray was too early. Some experiments on Delicious seemed to show that concentration of spray, using full, half and quarter strength controlled drop in proportion to spray strength. Also light applications amounting to a poorly-applied spray was about half as effective as a thorough spray job. Some work with Stayman trees showed that possibly the trouble with this variety, as reported by growers, was due to the spray being applied too early. In the Northwest section, not a single failure was reported from use of the spray, and some growers increased the fruit color enough to move the fruit into a higher grade. Possible reasons for failure with the spray were;—water shortage in the tree, poor foliage, age and vigor of tree (better effect on young trees), poor timing of the spray and poor coverage with the spray.

In the discussion, several growers reported good or bad results, but bad results mainly due to late spraying, weather or variety. Watercore was reported in Delicious, but that was found to be present in unsprayed blocks also. Results with York were reported not so good, but this is still a question. The spray has not been effective experimentally on peaches, but some growers report good effects on peach, plum and pear in sections of the country. Maryland growers reported the spray to be fine on Williams, Stark and Golden Delicious. Rome was good, Jonathan uncertain, but Grimes seemed to yellow up better and developed a blush in some cases. After the effect of the spray is past, there is a very heavy drop of fruit in a very short time.

Mr. W. C. Beaven, Maryland State Department of Markets, traced the trends of the market and of the growers' changes along with these trends. In 1929, we could export anything but in 1932 France imposed sanitary restrictions and Argentina insisted upon barreled apples being individually wrapped (one year only). In 1933 the Export Apple and Pear Act came in, and in 1934 Hitler began the barter system. Apple maggot caused a tightening in 1936 and in 1938 the U. S. Government bought 34,200 bushels of the 1937 crop of U. S. No. 1. In all these years, the industry improved, but in 1939, conditions slipped and the growers became careless. The Government bought 160,881 bushels in 1939 and in 1940 took 46,470 bushels of the 1939 crop out of storage, and also bought more apples in 1940. The speaker stated frankly that lately the grading and packages are becoming poorer. He urged growers to consider these matters and try to correct them.

Mr. John Lyman, Fruit Grower, Middlefield, Connecticut, spoke on advertising and the movement of the fruit crop as a means of selling the crop. He brought greetings from the Connecticut Pomological Society of which he is a past president. He is also active in the New England Apple Institute and is Vice-President of the National Apple Institute, both of which have done fine work in apple publicity. He told us to swim and get to the top and to be enthusiastic about our apples and all apples. Free advertising is no good. We must push apple publicity by talk, paint and ink. Man-made competition has pushed the apple off the stage. Ford advertises his cars because of competition. Apples have decreased in per capita consumption from 90 pounds in 1910 to 35 pounds in 1935. Other fruits and vegetables have come in, and apples have been shoved under the counter. The regional advertising units have come in as a gesture to help ourselves before apples become extinct. Thirty-four States grow apples and we cannot pack under a uniform label, so the National Apple Institute is a means of telling people everywhere about apples. Growers

are becoming apple-conscious, doing their best for their apples or the other fellow's apples. We need not look to greener fields when we have them in our own section. Maine growers put on a State campaign and **sold their** apples at home. Small towns are good markets. The home orchard is gone and folks must have apples. Connecticut imports apples from other States when their apples are gone. A recent Sunday newspaper feature on apples in Connecticut caused a great apple sales increase. Growers must not only think of their own State, but must think nation-wide or even world-wide. We can't subscribe to the advertising plan, then wait. We must go after our trade. The grower is not always a good marketer. In season of full crops, he lets the crop go at any price, and in short seasons he pad-locks the storage door. We must make apples available any kind of season, and not depend upon short crops to make a "killing". We are late in our advertising. Orange growers have never stopped since that first year when Sunkist growers raised $7,000 for national advertising, one-half of which was raised by growers, and the other half given by a railroad company. After we advertise, we must be ready to give the consumer apples when, where and how he wants them.

Mr. Truman Nold, Secretary, National Apple Institute, Columbus, Ohio, was scheduled to discuss improved fruit packages, but simply brought a small paper sack of apples which he had purchased downtown. He felt that the paper sack was still the most important package and stated that the grower's ultimate profit or loss would depend upon what kind of apples the consumer got from the paper sack that was brought home. The sack which he had purchased held 7 Delicious apples that had cost 15c, or 3 pounds for **17c.** Every apple had been a No. 1 at packing, but every one was a very poor cull, now. The grocer had complained that the apples were not moving. They were really dusty. The speaker wondered why persimmons, tomatoes, and grapes move to market in excellent shape while apples are made into culls after leaving the packing house. He gave as reasons for decreased apple consumption, the fact that there are less children to eat apples, and family units are smaller. There is less home storage space in apartments, and the housewife buys just a few apples at a time, at the self-service stores. The bushel basket is no longer a family package. The real family package is still experimental and growers must experiment until the answer is found. Sometime, we will pack apples fresh just before they are marketed. The package is second in importance. Careful handling all along the line is necessary to give the consumer a clean, bright, shiny apple, no matter what the package may be.

Mr. Paul E. Nystrom, County Agent Leader, University of Maryland Extension Service traced the changes in food habits of the people from the days of large families when every home had its basket of apples, to the present when salads, vegetables and citrus fruits have come into wide use, and told of the 36% decrease in apple consumption over a certain period, while orange consumption had increased 180%. If every man, woman and child had their apple a day, we would have to increase our apple production tremendously He stated that it was risky to expect the Government to continue buying surplus apples while national defense is becoming more urgent. He saw some increased income due to defense, but even if more apples were bought from this income, it may be only temporary. There are over 90 apple varieties in the markets, mostly from smaller or older orchards. Last summer fruit growers requested a national tree removal program as part of the Soil Conservation program. This has been placed

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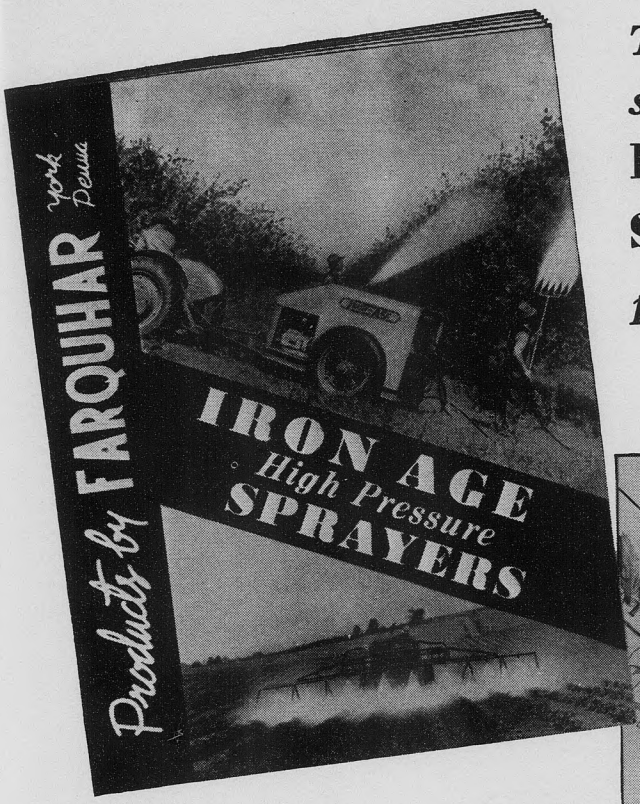
in the 1941 program. For removing live, permanent trees (apple only) whose fruit is of inferior quality, payments per tree are: for trees 5 to 12 inches in diameter, 30c per tree, and for trees 12 or more inches in diameter, 50c per tree. Measurements taken one foot above ground. No payments for trees under 5 inches diameter. Commercial or non-commercial trees are included. Trees may be sawed, chopped or pulled, and the land is not to be used for soil-depleting crops for one year. Trees of poor vigor, old age, poor variety or on poor soils or sites are included. The maximum payments for tree removal depend upon units of farm credits allowed the particular farm for practices under the Soil Conservation Act. Growers must have approval of their county committee before beginning the work. The speaker urged full participation by growers as a means of cutting the production of poor fruit.

Dr. C. Graham, Associate Entomologist, University of Maryland stressed timeliness and thoroughness of spraying as a means of codling moth control. He stated that from experiments and actual demonstration he felt that no new methods or materials are needed for a good control job. Tracing the developments in spraying, the speaker stated that 40 years ago, one arsenate of lead spray was applied at petal fall, while today from 5 to 8 lead sprays are used. Among the reasons given for more codling moth damage were concentrated orchard areas, with abandoned orchards in the vicinity; larger trees, and probably poor pruning, highly developed packing sheds, and moths more resistant to spray poisoning. Each generation of moths can fly 300 to 400 yards, and spread of moths is rapid, each year. The speaker traced the work with oil-lead, nicotine-lead, nicotine-oil-lead, rotenone, pyrethrum, phenothiazines, and xanthones, all of which had some special use or promise. However, he concluded that we had the last word in machinery and nozzles and we had good materials, but the failure to control moth was due to lack of pruning to allow spray penetration, to failure to scrape and band trees, and failure to spray the tree thoroughly inside and out.

Dr. E. N. Cory, State Entomologist, University of Maryland, stated that the European corn borer might become a serious pest, and was of interest to fruit growers, if they grew corn for their stock. It has become serious in lower Eastern Shore, and also in the sweet corn canning section of Eastern Maryland. He outlined the life history, of the moth, showing that it is impossible to control in the growing crop. It is evident from the broken tassels on the stalks. Since it overwinters in the stalks, the best control seems to be to shred the stalks, ensile the stalks, or feed fodder in feed lots, but all untrampled fodder must be picked up later and shredded or burned. Cut the corn very low in the field, and plow for a clean turn-under of all stubble and refuse. The control is a community affair, and any outbreaks should be reported to the State Entomologist. It is probable that some resistant varieties of corn may be developed, but in the meantime, farmers should adopt vigorous methods of control where the insect is serious.

Dr. G. W. Langford, Associate Entomologist, University of Maryland, outlined the latest work in Japanese beetle control in Maryland. Traps are used to retard the beetle, and as sprays, he found arsenate of lead and a sticker to be very good, and also 4% rotenone and sticker. Later ripening peaches may require 1 or 2 extra sprays, and early peaches offer difficulty in good control. Spray when beetles first appear in the orchard, using a non-poisonous spray, applying it every 7 to 8 days. Pick the fruit on the



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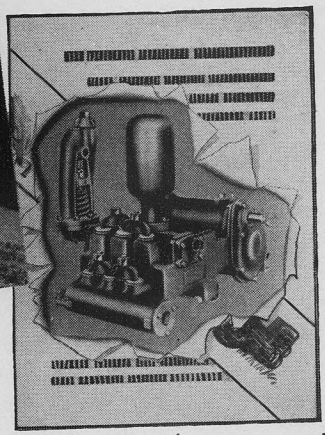

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green or hard-ripe stage of maturity. The main thing is not to delay spraying at the start. In 1941, 128,000 traps caught 140,000 quarts of beetles. Control by possible change of farm crops and fruit varieties was outlined. Parasites are being reared for 1941, and also the milky white disease is being spread on the soil as a promising method of control. This disease does not affect man, beast or soil. In 1940, 10,000 pounds of the disease culture was spread so that 1,300 square miles have been treated. In a demonstration of the disease, the speaker opened some treated and untreated cans of soil in which beetle larvae had been placed. In the untreated soil, 37 of the original 60 beetles were alive, while the disease-treated soil showed only 4 live beetles, 2 of which were dying of the disease.

Dr. O. I. Snapp, Entomologist, Fort Valley, Georgia Laboratory, discussed ethylene dichloride as a peach borer control, giving as its advantages, the use at low temperatures, its lower cost, and requiring no soil preparation. It may cause injury in water-logged soils or during hot weather. He suggested that tight soils be loosened, if necessary, and that soil cracks around the tree trunk be tamped shut. The material should be poured *on the soil* around the tree base, *not against the tree trunk*. Should not be used in excess doses, and should be kept stirred thoroughly. Stir before application to each tree, and be sure to stir the stock emulsion before any material is taken out for dilution. Mound, and leave the mound until ready to remove it. The speaker reported investigation of 50 orchards in the Cumberland-Shenandoah section for reported dichloride injury, and all seemed to show winter-injury with possible 11 orchards where dichloride had caused some injury following the winter injury. The emulsion may be used on cherry but *never* on apple or pear.

Mr. Porter R. Taylor, Chief of General Crops Section, A.A.A., stated the need of reduction of costs in efficient production, but such reduction does not seem possible, unless we get it by higher yield of better fruit. He outlined the troubles of the apple industry due to depression, loss of world trade, increase in citrus and better price of citrus that apples did not share. Biennial crops are a handicap to apple growers. With the reduction of 7 to 12 million bushels in export apples, we have too much production for profit, and too many apples go into storage in glut years. Foreign trade after the war is a question, and the defense program with more employment may not prove of much benefit. The speaker advised: 1—elimination of poor varieties; 2—moving better varieties into the markets; 3—reduce storage in amount, and store only the best grades and sizes; 4—sell fruit in better condition, not leaving it in storage too long; 5—develop by-products at above cost of production; 6—develop new by-products outlets, especially juices. More pineapples go into juice than into cans. Cooperative action is necessary. Growers should consider as a group the tree removal plan, marketing agreements and bargaining between canners and growers. The 1941 crop may exceed the 1940 crop, and we should be ready to meet it, using the English defense slogan, "It is already later than you think."

Dr. C. H. Mahoney, Head, Department of Horticulture, University of Maryland noted trends in types of research for all farm products. More investigation is needed in question of high quality and high price. Quality improvements are bringing new varieties, color and quality. Disease resistance giving higher quality varieties and less crop loss is being worked out even to giving certain plants a mild disease to ward off serious ones. There is need of better insecticides and fungicides that will cause less

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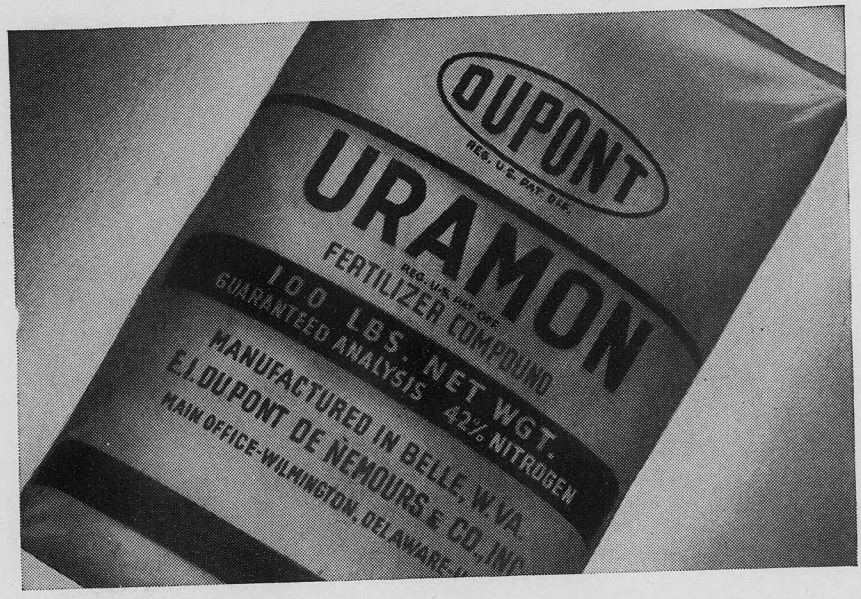

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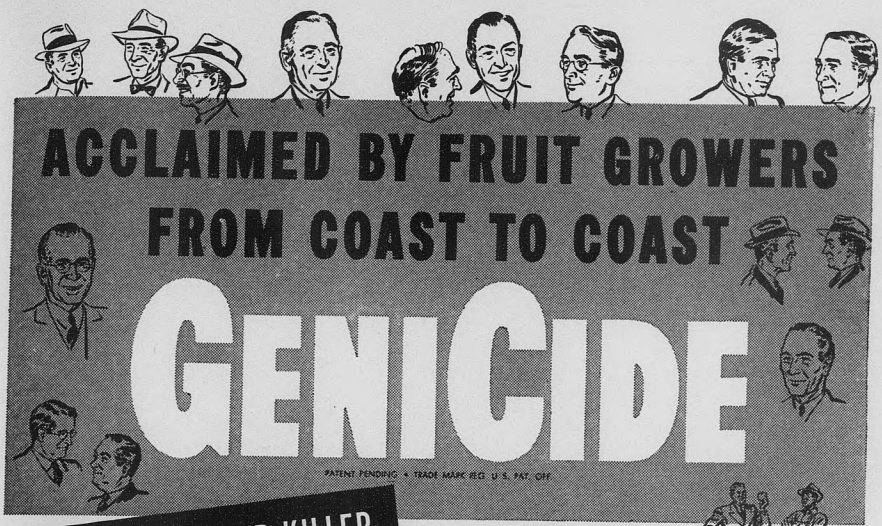
burning. The proper use of fertilizers as to placement, use of minor elements, and turning under the proper cover crops to aid in absorption and use of fertilizer, needs more study. Fruit growers need more information in sprays that will increase or decrease fruit set. Oils and waxes for prevention of crack or wilt of harvested fruits are being further investigated. Lower production costs may come from research with resistant varieties and root-stocks giving smaller trees. Better storing varieties are needed. In by-products, research with carbonated juices, dried products, frozen products, pectin , perfumes, flavors, etc., may be further developed from fruits. In medicine, apple powder, also oils and proteins from peach seeds offer promise. We also need to analyze merchandizing and publicity to know how to sell our products to the consumer.

Mr. George W. Colburn, Bountiful Ridge Nurseries, Princess Anne, Maryland, stated that in the past 20 years, peach production had moved into 19 states, where Georgia had formerly produced 60% of the crop. He advised growers to keep abreast of changes, such as new varieties, insects, diseases and methods, stating that wrong varieties were still being planted in some sections, and even new varieties should be planted carefully. The grower must cooperate with himself in packing and grading the best. New plantings should be carefully considered even down to labor supply. The peach market has problems of cheap canned peaches, loss of buying power by the working class which uses most peaches, and by excess crops in some seasons. The present 65 million bushel crop should be kept stable and not increased. Consumer demand, publicity, surplus and transportation are also in need of further study. He reviewed the past and present planting operations in the country and stated that research men were trying to establish a schedule of ripening dates so that competition between areas would be reduced. He saw a future to peach production, suggested moderate replacement planting, and advised growers to study all angles of the business, and especially to consider the picking, packing and package that will deliver the crop to the consumer in best condition.

Dr. K. J. Kadow, Head, Horticultural Department, University of Delaware, Newark, Delaware, stated that apple scab was usually less following a light scab year, but is always a problem. He described the experiments in Wisconsin, using a chemical for killing the spores in the leaves lying on the ground over winter. He used a commercial preparation, Elgetol at ½% strength, applying 500 to 600 gallons per acre, when buds began to swell. This gave about 85 to 95% kill of spores in the leaves. The usual scab sprays must also be applied to trees. Also, calcium arsenite and nitrate of soda were used, but the arsenite is not good on cover crops. In many experiments, it was shown that the omission of any of the regular scab sprays is not good. Using sulfur paste only, one experiment showed 43% scab, but where the ground spray was also used, there was only 6% scabby fruit. The material is promising in orchards where soil is wet and hard to get over in the spring. The material dyes the leaves a yellow color so coverage may be checked. Cost is about 10 to 15c per tree. It is best adapted to orchards where the scab problem is serious and is not a short-cut for careless growers. While still experimental, growers desiring to try it on a small scale might try a 1,000 foot square plot as a test. One Maryland grower has used it with good results.

Dr. H. W. Thurston, Jr., Pathologist, Pennsylvania State College, State College, Pennsylvania stated that fungicide sprays that reduce disease may



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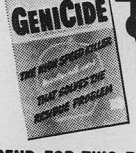

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also injure foliage, and better control may cause more burn. However, safeners have been developed. Fruit burning may not be real serious, considering that we thin off a lot, anyway. However, we must know how much we can stand for. We cannot expect too much even from safe sprays, for weather, soil, tree vigor, etc., may affect the results. Weaker lime-sulfur sprays may result in more scab, but it is an individual orchard problem. In 1939 Bordeaux seemed to reduce arsenic injury. The next year, three days of rain at the wrong time caused copper burn. The speaker stated that possibly a combined spray of various coppers and sulfur may be the ideal spray, but it has not yet been developed. He advised good pressures, and not getting too close to trees to cause driving spray resulting in leaf or fruit injury.

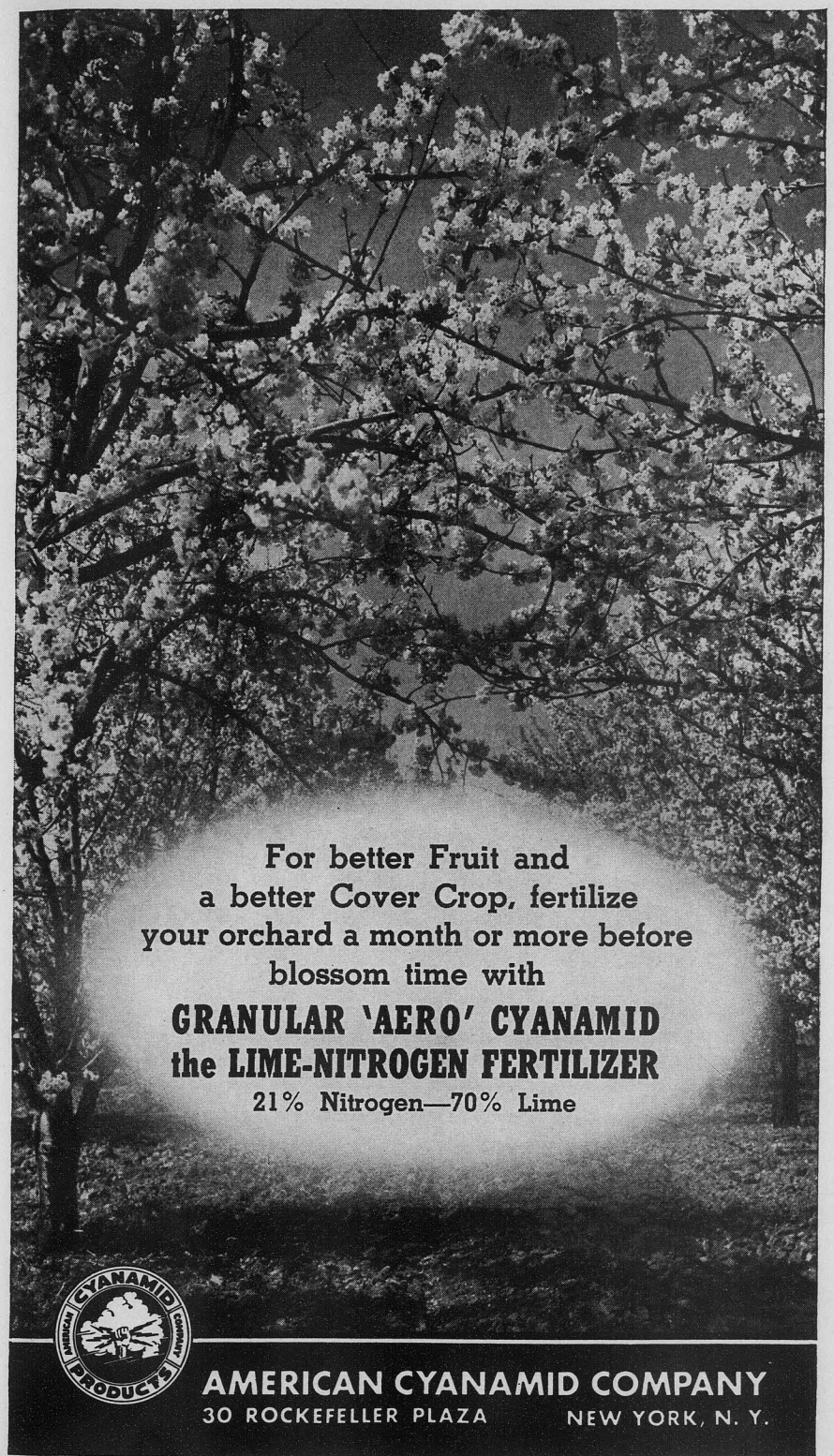
President Joseph G. Harrison, Berlin, was re-elected, with Stanley M. Fulton, Hancock and Dwight T. Walker, Mt. Airy as 1st and 2nd Vice-Presidents. respectively. A. F. Vierheller, College Park was re-elected Secretary-Treasurer, and Russell C. Shaw, Stewartstown, was appointed to fill Mr. Walker's place on the Executive Committee.

Resolutions were passed empowering the President to appoint a Legislative Committee, placing the Society on record as favoring national cull apple legislation; strongly urging every grower and every publicity and extension agency to get back of the tree removal program, urging support of the Governor and Legislature in appropriations requested for horticultural interests in the State, thanking those who contributed to the success of the meeting, and resolutions of sympathy were expressed in the death of David Maurice Wertz and Charles Phillip Close, during the past year.

The basement of the Municipal Market House proved excellent as an exhibit hall for the commercial orchard supply exhibits and the educational exhibits set up by Soil Conservation, Land Use Planning, Rodent Control, Japanese Beetle, Plant Pathology, and Horticulture. The annual dinner managed by a competent committee was a fine affair, with a high caliber floor show and a showing of the beautiful, colored sound movie furnished by Appalachian Apples Service.

LESS POOR TREES—LESS CULL APPLES

What is a cull? It is any fruit that either you can't sell at all or can sell at a loss. A fancy Winter Banana, for example, is a cull to you, if nobody wants it. Last spring, the Tree Removal Plan was discussed fully by 24 State representatives, at Rochester. The Committee appointed to work on it, did a heroic job. You can get paid at least part of the cost of tree removal by signing up under the Soil Conservation Act. Maybe you don't like such laws. Good, then cut out the trees, anyway, without the red tape. The Maryland Horticultural Society is on record favoring tree removal under the Act. We must grit our teeth and clean house. Too many apples; too many varieties; too many poor, old, weak trees of good and poor variety. See your County Agent and plan to cut out some trees with pay for it, or else just cut them out anyway. It's painful, but the industry is going to have to have a major operation if recovery is expected. Let's get behind tree removal. The growers have asked for it. We have it. Let's use it.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WEST VIRGINIA MEETING

The West Virginia Horticultural Society meets at Martinsburg, February 12 and 13. This is a good meeting. Plan to attend.

RUBBER TIRES ON TRACTORS

Practically all tractors are being delivered with rubber tires as standard equipment, and gradually, general farm and orchard rolling equipment is being set on rubber. An interesting questionnaire on rubber-tired tractors was sent out in Iowa. As reported in November, 1939—"Agricultural Leaders' Digest," 196 Iowa farmers representing 73 counties and 381 years of individual observation, reported their experiences on rubber-tired tractors. All but three men were satisfied. The final report showed:

"Estimated fuel savings for the same work ranged from 0 to 50% with an average of 22%. A nearly similar average saving in labor, 23%, was reported also, with the range from 5 to 50%.

The use of a higher gear for most field operations was reported by 54%, and 93% used a higher gear for at least one important implement. The use of machines of greater operating width was reported by 40%.

The new high lug treads were reported as being generally more satisfactory, particularly for adverse traction conditions. All but three of the 40 users who had tried water as a substitute for cast iron wheel weights were satisfied with the plan.

The cooperators reported the following advantages for pneumatic tractor tires: Reduced fuel and labor requirements; higher speeds; easier operation on hard surface roads; less damage to farm roads, lanes, meadows and pastures; decreased tractor breakage and wear, and greater comfort.

The disadvantages experienced were higher first cost, possibility of delay and expense from accidental damage, the expense of also equipping at least part of the drawn equipment with rubber tires, lower maximum drawbar pull under certain conditions, more objectionable tracks in loose tilled soil and decreased stability for belt work.

Considerable variation in the rate of tire wear was reported, and the necessity of avoiding excessive slippage was frequently emphasized. Annual maintenance costs were found to be very low, averaging only 28 cents per set per year, although in individual cases annual costs averaged as high as $5. The estimated useful life in years varied from 3 to 15 with an average of 7, and the estimated useful hours of use averaged 6,765."

1941 MEMBERSHIP

Memberships for 1941 are due. If paid *before* February 15, grower-members will receive The American Fruit Grower Magazine for one year. Send your dollar to A. F. Vierheller, College Park, Md.

"Marie, when you wait on the table tonight for my guests, please don't spill anything."

"Don't you worry, ma'am, I never talk much."

Lawyer—"Just because my client was crawling along the middle of the road is no reason that he was drunk."

Officer—"No, but this fellow was trying to roll up the white line."

STAUFFER

SPRAYING AND DUSTING

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Each year, a greater number of fruit growers depend on STAUFFER SULPHURS for apple scab and peach brown rot control. Include them in your program the coming season. You, too, will find that STAUFFER SULPHURS are effective and economical.

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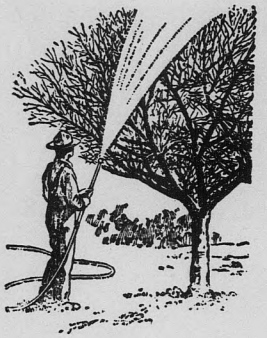

What is Your Spray Problem?

Let B.G. Pratt Sprays Help You

SCALE—**Scalecide** is the most effective and safe scale spray ever devised. It also cleans up cankers and improves the general vigor of the trees. Add 1 gallon **Straitar** to each 100 gallons of your **Scalecide** spray for stubborn cases of Oyster Shell, Scurfy scale and Peach Lecanium. For a low cost, safe dormant oil emulsion, use Pratt's **Spra-Cream.** It fills the bill as nothing else will do.

APHIS—Kill dormant rosy aphis eggs with the above **Scalecide** and **Straitar** spray applied in the delayed dormant season; or use 3½ gallons **Spra-Cream** with 1 pound Dow's Dinitro Dry Mix per 100 gallons in the dormant season. One pint D-X added to your prepink or pink spray before the aphis curl the foliage is effective and less expensive than nicotine.

RED MITE—Either **Scalecide** or **Spra-Cream** as a delayed dormant spray controls this troublesome pest. When using **Spra-Cream** with Dinitro it is best to increase the dilution to 4 or 4½ gallons for red mite. Growers using **Spra-Cream** alone in the delayed dormant period for red mite need not stop spraying when the buds burst, but can cut the dilution to 2 gallons and continue spraying with safety and effective results.

MEALY BUG—After thoroughly scraping your trees, either mechanically or with a special gun on your sprayer, spray on a warm day in the dormant season with 6 gallons of **Scalecide** and 3 gallons **Straitar** or 4 gallons **Spra-Cream** and 3½ gallons **Straitar.** Use plenty of force.

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